City of Snoqualmie

Water, Sewer and Storm Utilities Rate Study Update

Public Meetings

February 2, 2017

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Solutions-Oriented Consulting

Summary

- **Ordinance provides:**
  - Rate increases for all City utilities for 2017 – 2020
  - Connection charges for new utility connections
  - Funding for capital program and operational needs for the City's utilities
- **Likely effective March 2017**
- **Public hearing scheduled for February 13, 2017 at 7:00 PM or soon thereafter before the Snoqualmie City Council with opportunity for verbal comments**
- **Written comments submitted to the City, PO Box 987, Snoqualmie, WA 98065, Attention: City Clerk on or before February 13, 2017 at 5:00 PM**

How will these funds be used?

- **Water**
  - Water system improvements including water main replacements for water quality, reliability and fire flow
  - New reservoir and improvements to existing reservoirs
  - Two new pressure zones to increase or decrease water pressure at tap
  - Improvements to the City's sources of supply
- **Stormwater**
  - Installation of storm drainage systems implementation of programs to meet requirements for the National Pollutant Discharge Elimination System Permit
- **Wastewater**
  - Wastewater treatment facility improvements including a new generator, solids handling facilities, and other treatment components
  - Assure around-the-clock operations to protect water quality and public health while sustaining a healthy environment
- **All three utilities:**
  - Historic Snoqualmie water and sewer main replacement, and stormwater improvements

Rates – Water

- **Current and future water bills include:**
  - Fixed charge: applicable meter size
  - Plus water usage charge:
    - Residential - three tier rate structure
    - Multifamily and commercial - uniform structure
- **Price of water use increases in each tier**
- **Proposed water rate increase is 5 % each year for the period from 2017-2020**

Rates – Water

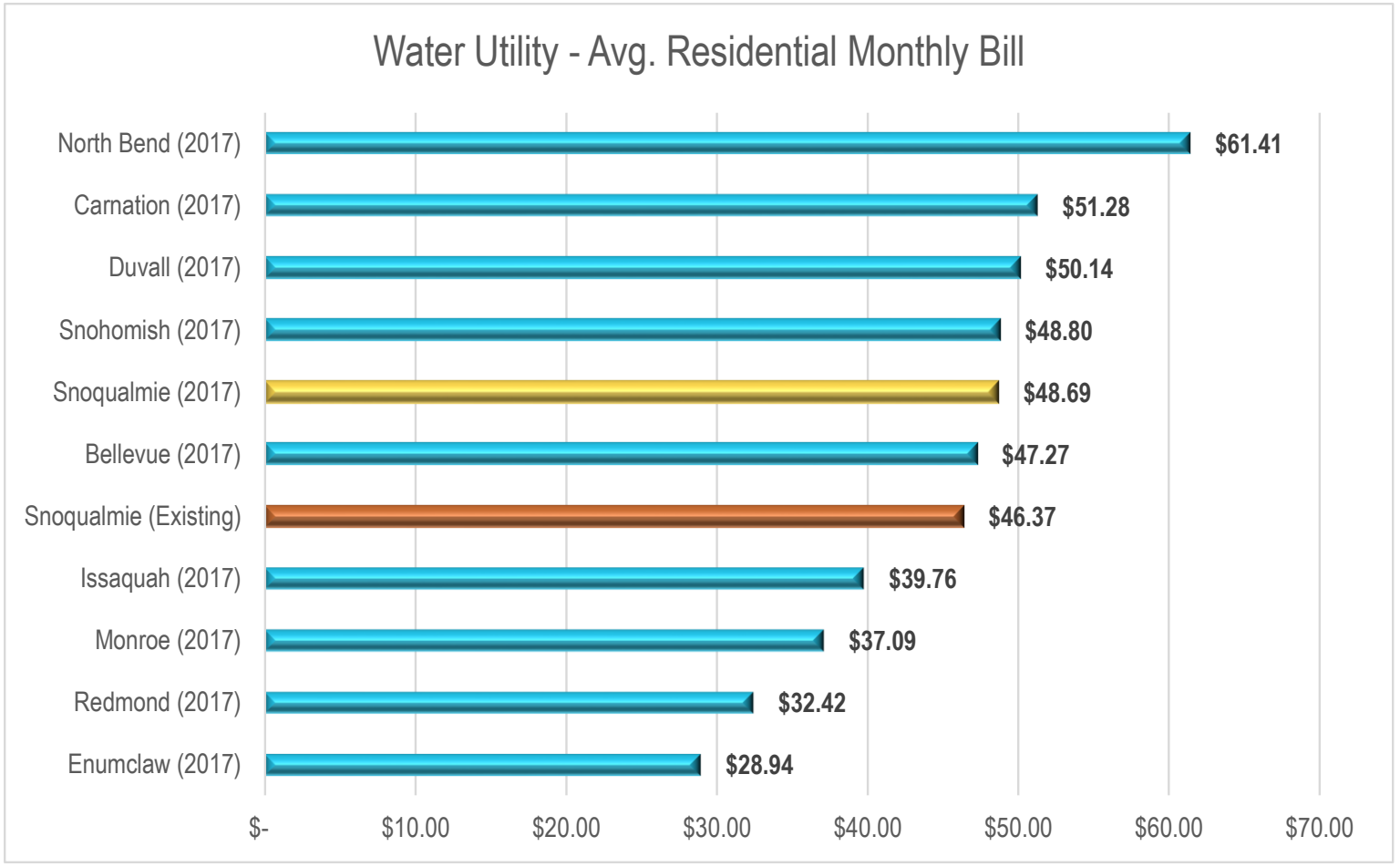
Meter	Existing (2016)		2017 Proposed		2018 Proposed		2019 Proposed		2020 Proposed	
	Res./MF.	Comm/Irr.	Res./MF.	Comm/Irr.	Res./MF.	Comm/Irr.	Res./MF.	Comm/Irr.	Res./MF.	Comm/Irr.
Monthly Fixed										
3/4"	$ 28.27	$ 34.19	$ 29.68	$ 35.90	$ 31.17	$ 37.69	$ 32.73	$ 39.58	$ 34.36	$ 41.56
1"	35.49	42.92	37.26	45.07	39.13	47.32	41.08	49.69	43.14	52.17
1.5"	58.82	71.13	61.76	74.69	64.85	78.42	68.09	82.34	71.50	86.46
2"	98.15	118.68	103.06	124.61	108.21	130.84	113.62	137.39	119.30	144.26
3"	147.37	178.19	154.74	187.10	162.48	196.45	170.60	206.28	179.13	216.59
4"	196.47	237.56	206.29	249.44	216.61	261.91	227.44	275.01	238.81	288.76
6"	294.51	356.11	309.24	373.92	324.70	392.61	340.93	412.24	357.98	432.85
8"	392.72	474.85	412.36	498.59	432.97	523.52	454.62	549.70	477.35	577.18
MF per Unit	24.81		26.05		27.35		28.72		30.16	
Volume (per 100 cf)										
Residential										
Block 1 (0-300cf)	$1.86		$1.95		$2.05		$2.15		$2.26	
Block 2 (301-800cf)	3.13		3.29		3.45		3.62		3.80	
Block 3 (801+cf)	3.91		4.11		4.31		4.53		4.75	
Multifamily	2.22		2.33		2.45		2.57		2.70	
Commercial/Irrigation	2.87		3.01		3.16		3.32		3.49	

Notes:

Outside City rates are 1.5 times the inside City rates.

Low income senior/disable rate available.

Rates - Water Comparison



Rates – Stormwater

- **Stormwater rates are based on the amount of impervious surface contributing to the City's storm water system**
  - Equivalent Service Unit (ESU) basis
    - 1 ESU = 1 single family residence or 2600 Square Feet of impervious area
- **Proposed stormwater rate increase is 5.65% each year for the period from 2017-2020**

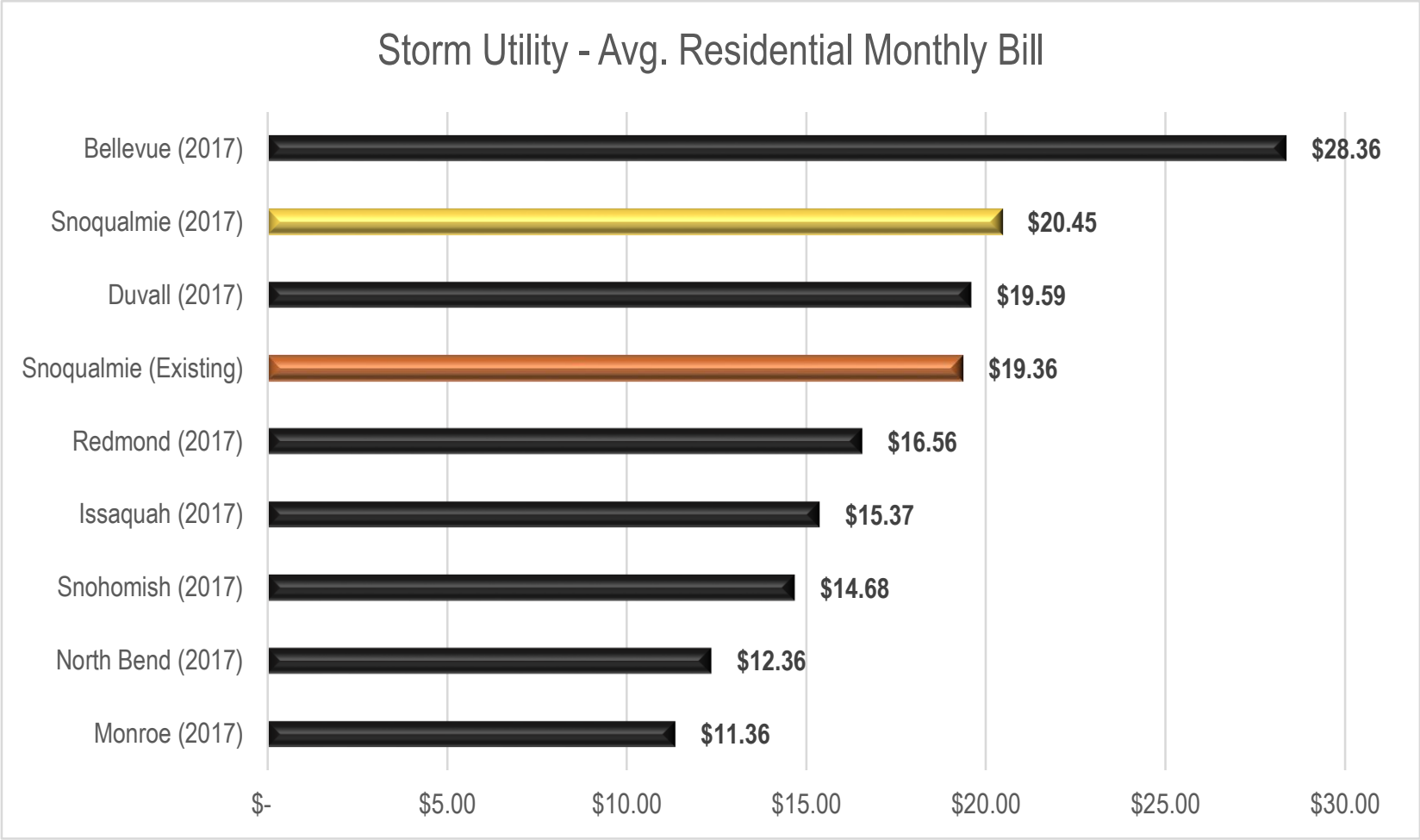
Rates – Stormwater

Description	Existing (2016)	Proposed			
		2017	2018	2019	2020
Monthly Charge (per ESU)	$ 19.36	$ 20.45	$ 21.61	$ 22.83	$ 24.12

Notes:

Low income senior/disable rate available.

Rates – Stormwater Comparison



Rates – Sewer

- **Sewer rates are based on:**
  - Fixed charge for Residential and Multifamily customers
  - Fixed charge and usage charge for Commercial customers
    - Usage charge is applicable to usage above 600 cubic feet (cf) of monthly use
- **Proposed sewer system average rate increase:**
  - 2017-2019: 17% each year
  - 2020: 5.5%
- **Proposed structure change:**
  - Strength based rates for Commercial customers
    - Redistributes the system average between classes based on Cost of Service analysis

Commercial Rates – Why Sewer Strength Rates?

- **Not all sewer flow is equal**
- **Highly concentrated sewer flows are more expensive to treat**
  - Increased capital requirements and ongoing O&M expenses
- **Sewer strength charges allow for fair cost distribution between customers**
  - Customers with higher concentrations will pay more
- **Approximately 194 commercial customers**
  - 150 low commercial
  - 44 high commercial
  - High commercial customers contribute approximately 4 times more strength than domestic

Rates – Industry Rate Setting Guidelines

- **Determine cost factors**
  - System design
  - Regulatory requirements
- **Group customers with similar sewage characteristics**
  - Quantity (flow)
  - Quality (concentration of BOD and TSS)
- **Allocate costs to customer classes proportionate to system costs**
  - Cost of Service (COS) analysis

Rates – Sewer Customer Categories

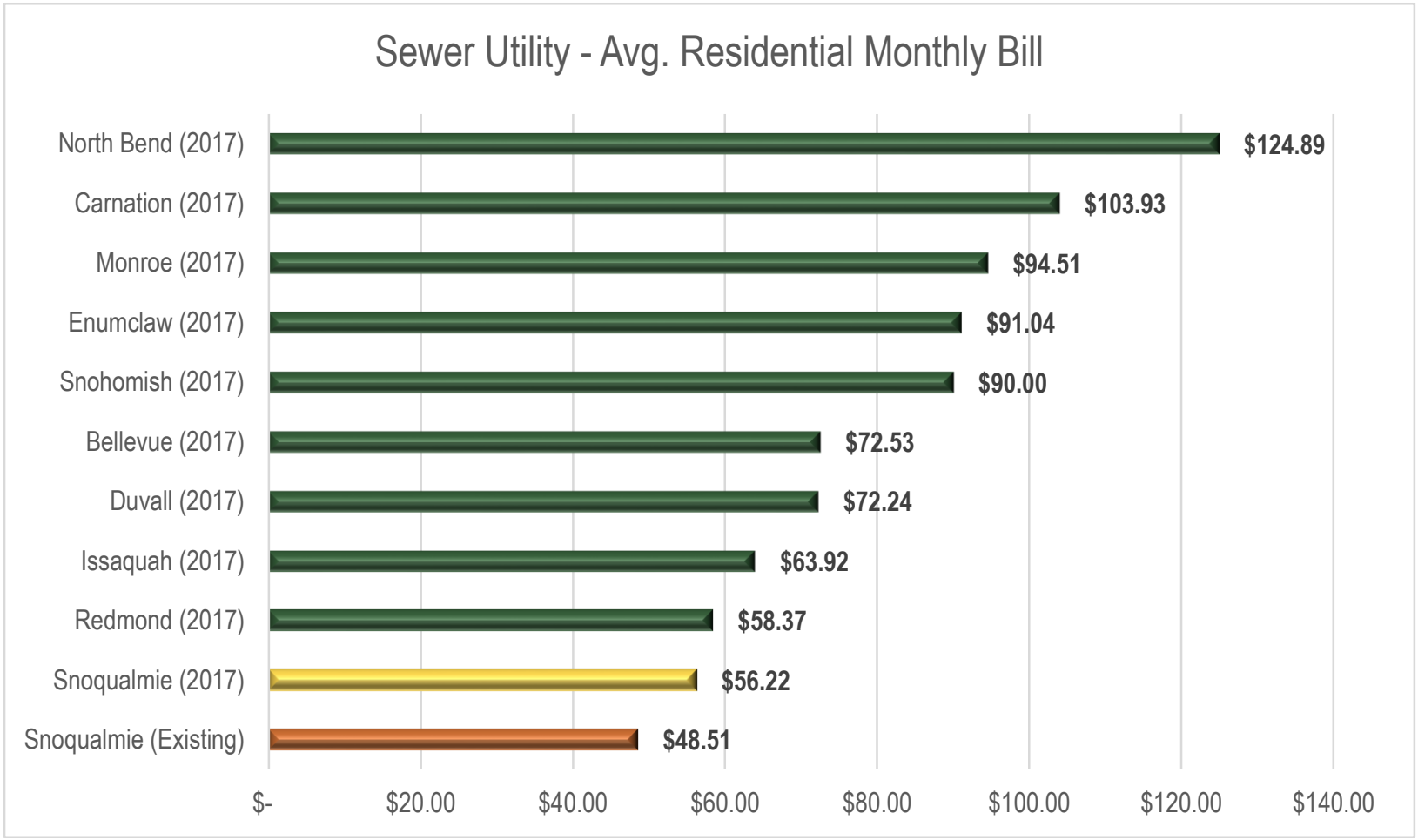
- **Residential**
  - E.g. single family homes, duplex, triplex, multifamily units
- **Low Commercial (0-250 mg/l BOD and/or TSS)**
  - E.g., schools, professional offices, specialty stores.
  - Equal to domestic level concentration
- **High Commercial (251+ mg/l BOD and/or TSS)**
  - E.g., repair shops, service stations, hospitals (with dining facilities), laundries, restaurants, hotels and dining facilities, breweries

Note: the provided example businesses by strength class are a sample of the different types of businesses and do not represent the entire list.

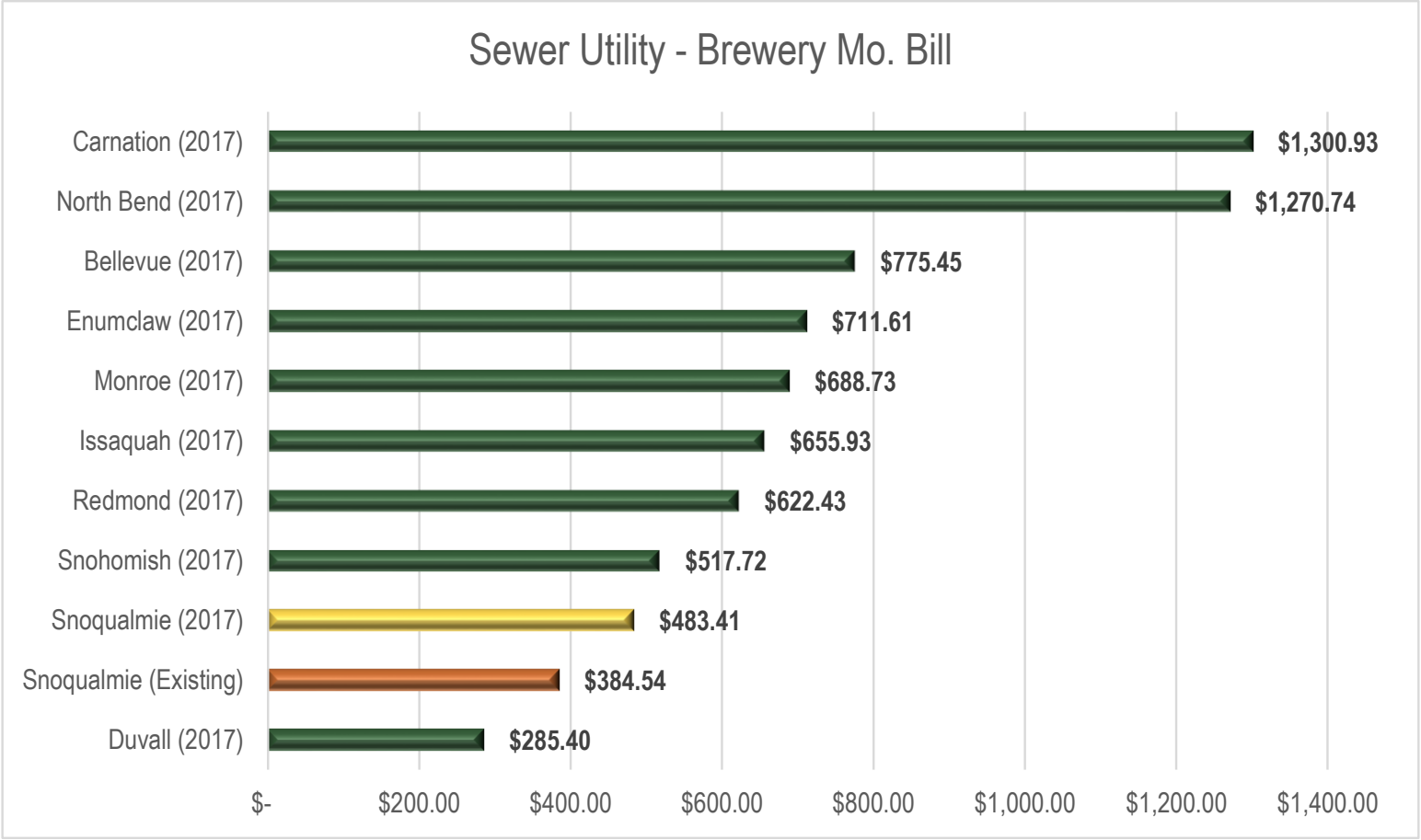
Rates – Recommended Sewer Rates

Class	Existing	2017	2018	2019	2020
Monthly fixed					
Residential	$ 48.51	$ 56.22	$ 65.16	$ 75.52	$ 78.99
Multi Family	38.61	44.75	51.86	60.11	62.87
Commercial					
Low Commercial	59.79	69.29	80.31	93.08	97.92
High Commercial	59.79	69.42	86.96	109.02	121.72
Volume per ccf > 6ccf per month (Commercial only)					
Commercial					
Low Commercial	$ 4.33	$ 5.02	$ 5.82	$ 6.74	$ 7.09
High Commercial	4.33	5.52	6.94	8.67	9.64

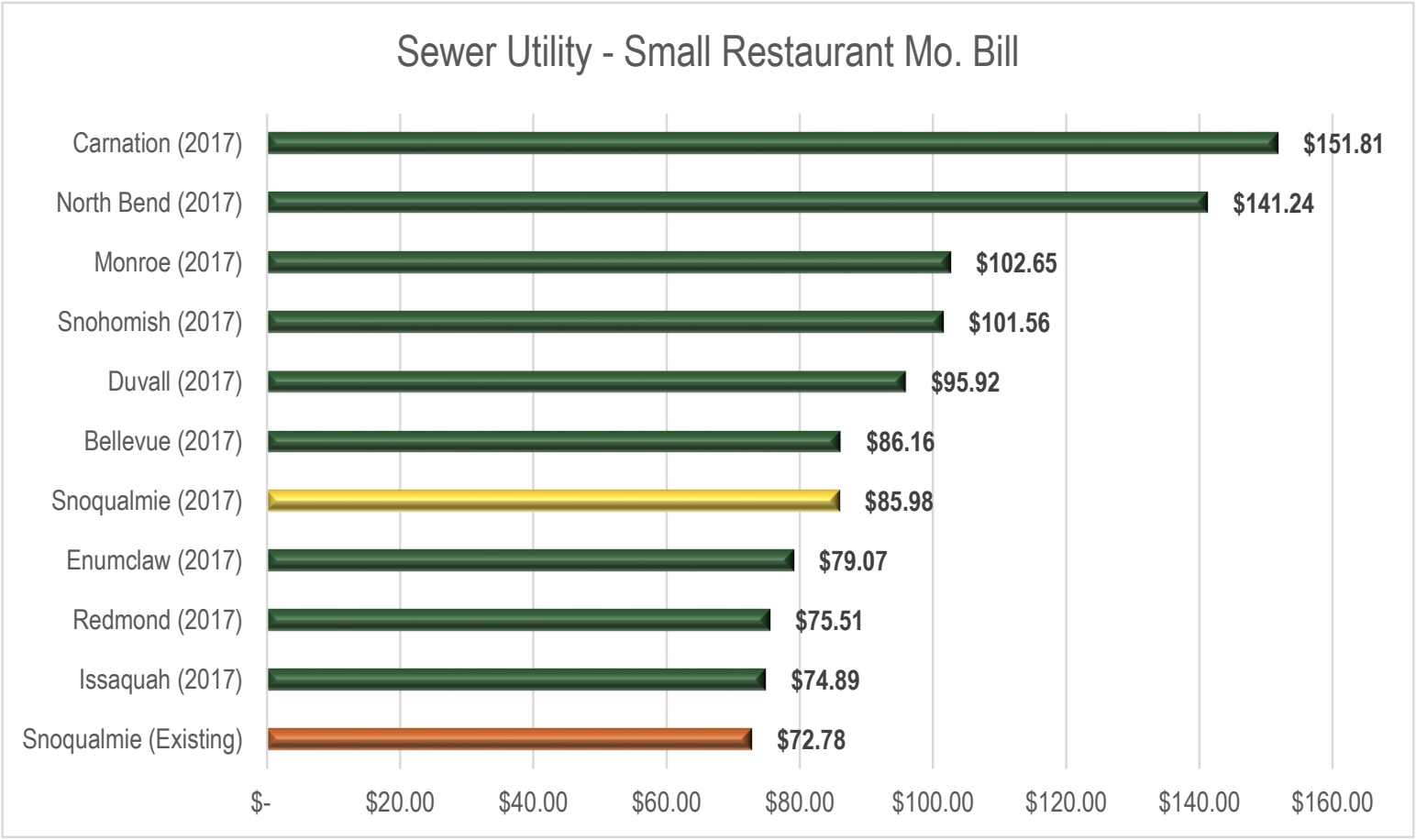
Rates – Residential Sewer Comparison



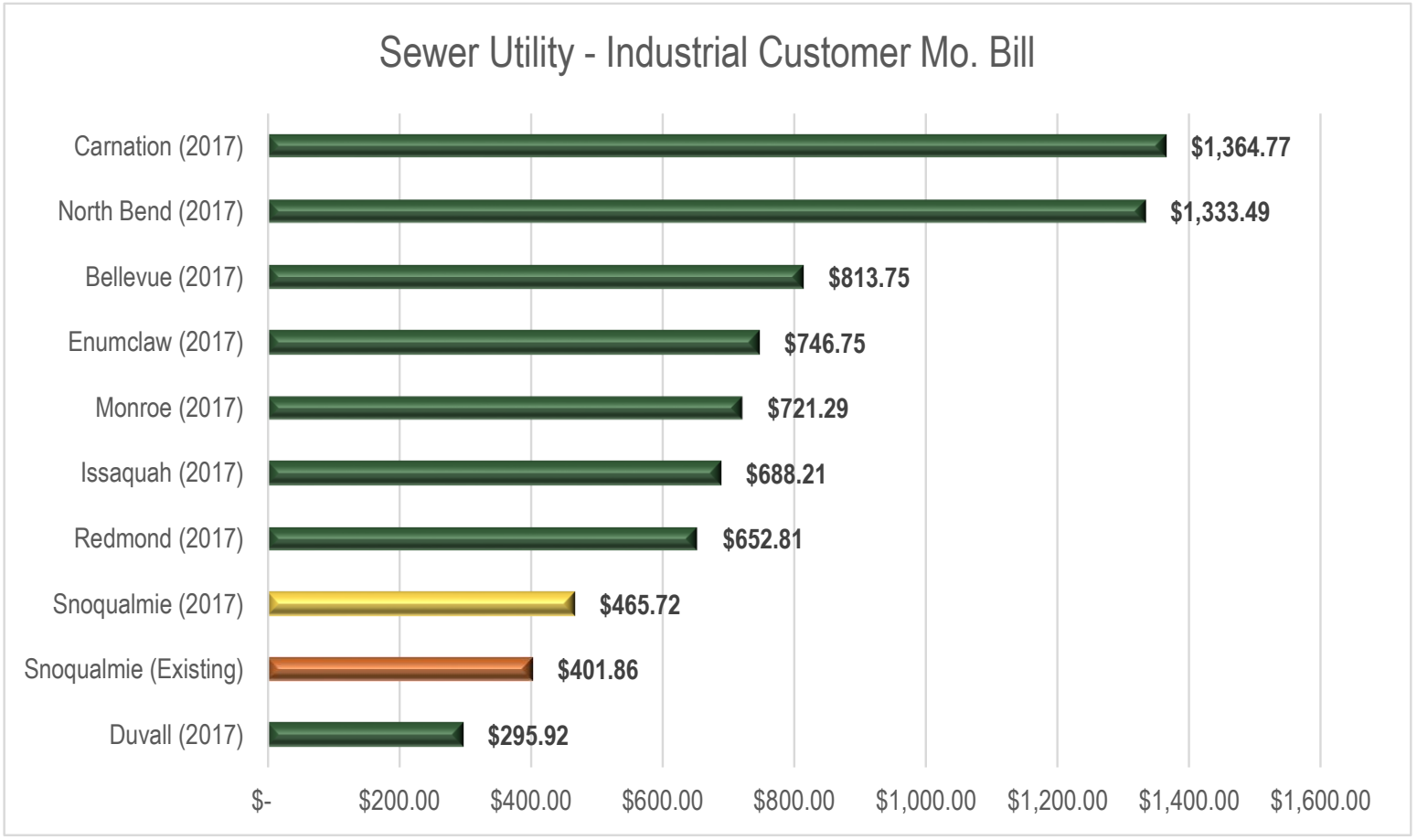
Rates – Brewery (High Commercial)



Rates – Small Restaurant (High Commercial)



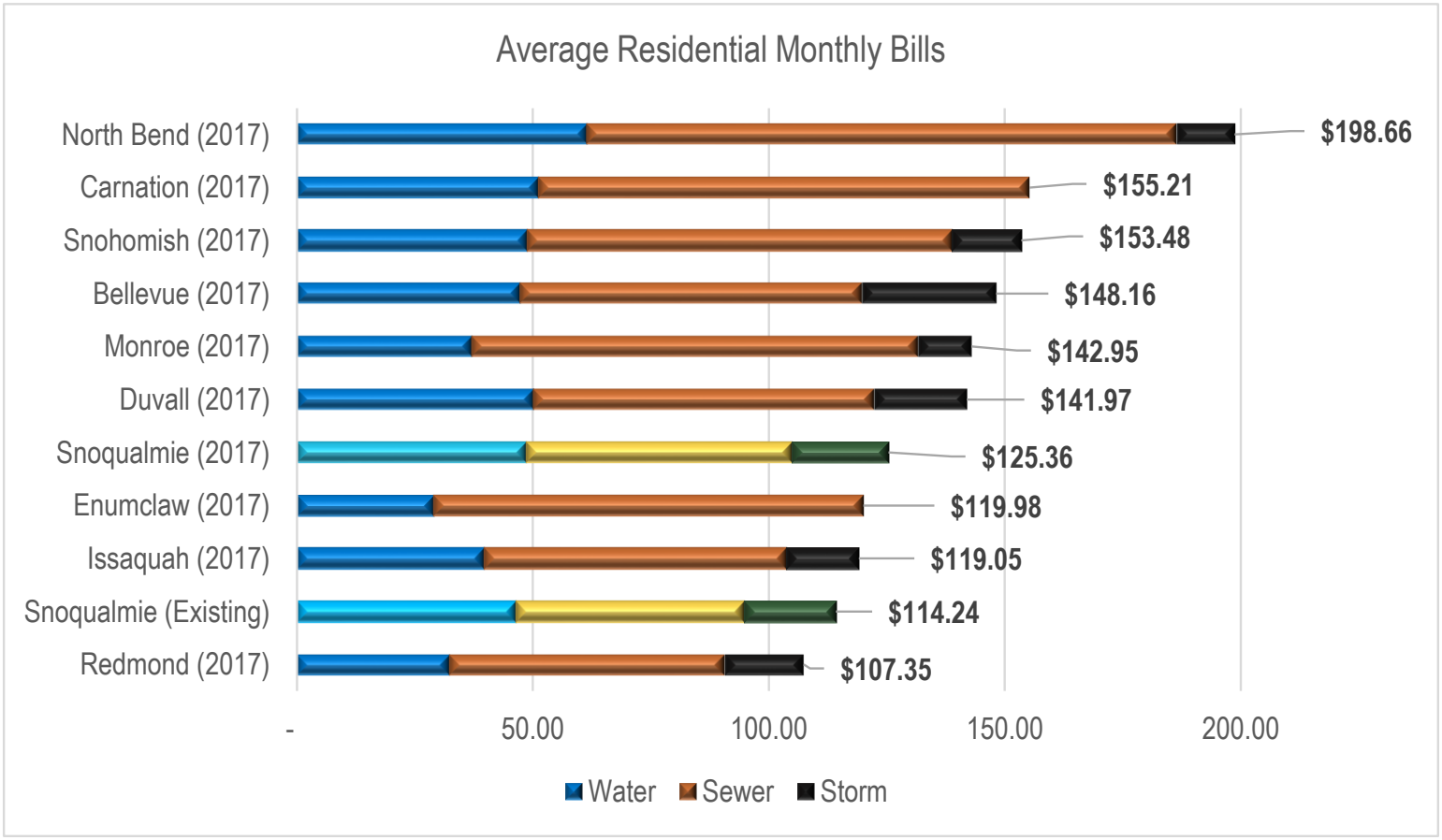
Rates – Industrial Application (Low Commercial)



Combined Bill Impacts – 2017 Only

- **Residential bills**
  - Average 7 ccf combined utility bill: increase is $11.12 or 9.73%
  - 4 ccf water use: increase is $10.65 per month or 10.16%
  - 11 ccf water use: increase is $11.86 per month or 9.19%
- **Commercial bills**
  - Average Low Commercial 13 ccf & 5 ESUs combined utility bill: increase is $23.36 or 9.04%
  - Average High Commercial 48 ccf & 5 ESUs combined utility bill: increase is $73.67 or 14.43%

Rates – Residential



New Customer Charges

New Customer Charges

- **Connection Charges (physical connection) – existing charge**
  - The cost to connect to the water, sewer or stormwater system
- **General Facilities Charge – GFC- (buy-in fee) – new charge**
  - One time charge imposed on new development or expanded connection to system as a condition of service
  - Represents a prorated share of the cost of providing system capacity
- **Connection charges and GFC's benefit ratepayers so that "growth pays for growth"**
  - Collection of new customer charges may reduce future rate increases

Connection Charges

- **Water utility** (last updated in 2002)

Meter	Existing		Proposed (plus tax)	
	Inside City	Outside City	Inside City	Outside City
3/4"	$ 2,150	$ 2,800	$ 5,233	$ 5,883
1"	2,300	3,000	5,240	5,940
1.5"	3,300	4,300	6,764	7,764
2"	3,700	4,800	6,915	8,015

- **Sewer utility** (last updated in 2001)
  - *Existing*: $2,500 per residential unit
  - *Proposed*: actual cost (due to depth of sewer)
- **Stormwater** (no current charges)
  - *Existing*: no fee assessed
  - *Proposed*: actual cost
- **Connection charges waived for the Snoqualmie Ridge Planning Area**

General Facility Charges

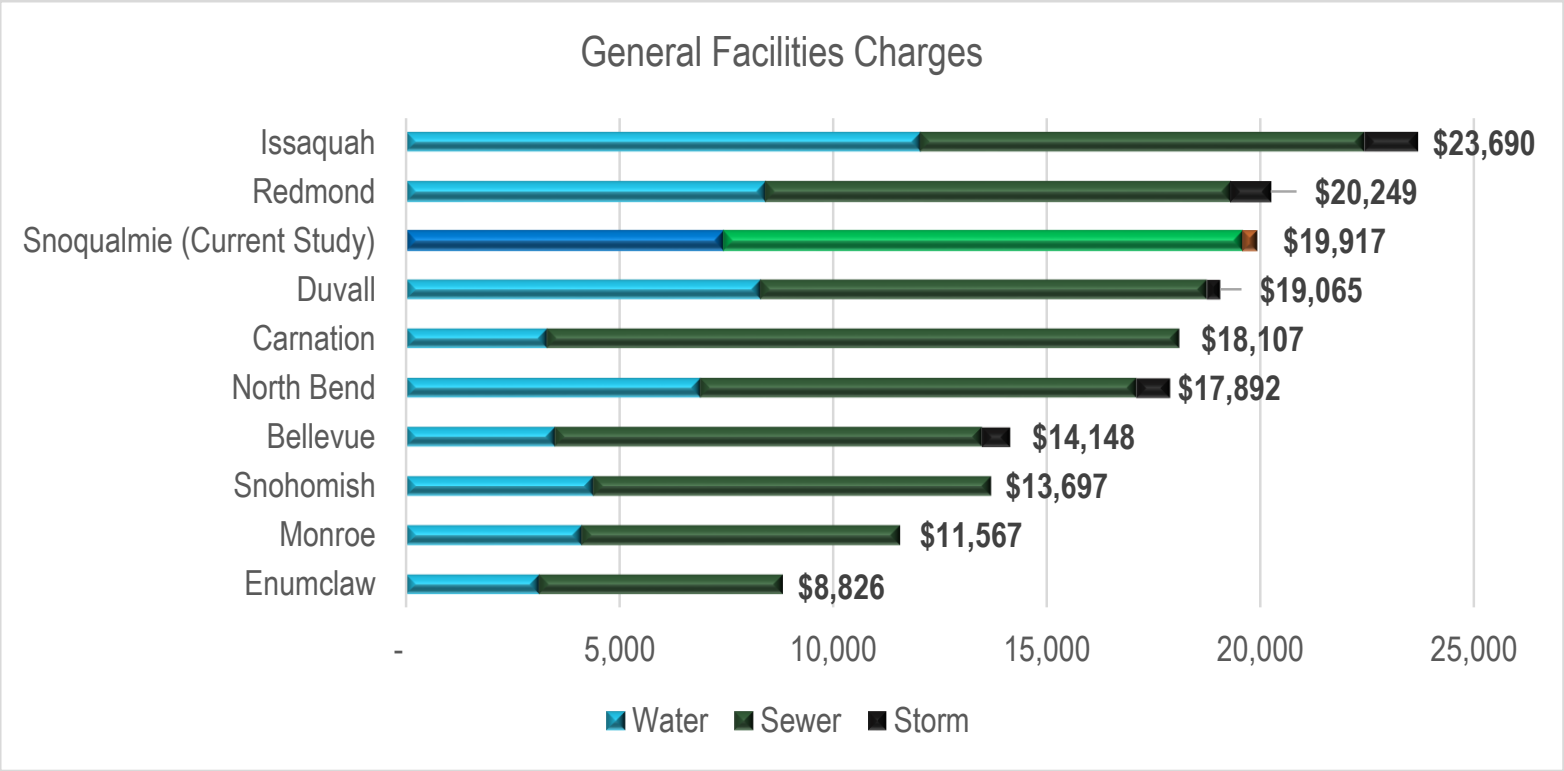
WATER GENERAL FACILITY CHARGE		2016
TOTAL GENERAL FACILITY CHARGE	$	7,421

Meter	MCE Factor		2016
3/4"	1.00	$	7,421
1"	1.67		12,368
1.5"	3.33		24,735
2"	5.33		39,576
3"	10.00		74,206
4"	16.67		123,677
6"	33.33		247,353

SEWER GENERAL FACILITY CHARGE		2016
TOTAL GFC (PER ERU)	$	12,168

STORM GENERAL FACILITY CHARGE		2016
TOTAL GFC (PER ESU)	$	328

GFC Survey: Combined



Proposed Cost of a New Residential Connection

Water	2017
Connection Charge	$5,233
General Facilities Charge	$7,421
Sewer	**2017**
Connection Charge	own crew
General Facilities Charge	$12,168
Stormwater	**2017**
Connection Charge	own crew
General Facilities Charge	$328
Total Cost	**$25,150**

Note: if latecomer fees are applicable, they would be added to these costs.

Next Steps

- Incorporate feedback
- Public hearing before the City Council on February 13
- Council may choose to adopt Rate Ordinance on February 27

Questions/Discussion

Rate Setting Process

- **Step 1 – allocate total utility costs by function**

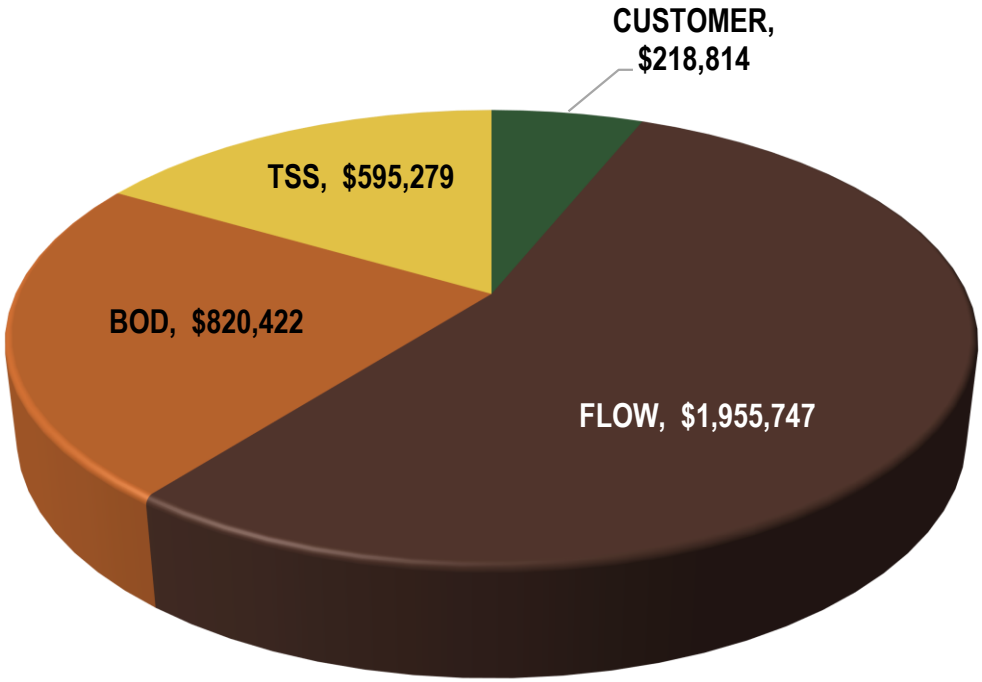
Wastewater Utility Functions**

- ✓ Customer
- ✓ Flow
- ✓ Strength: Suspended Solids (TSS) and Biochemical Oxygen Demand (BOD)

- **Step 2 – develop allocation factors using class specific information**
- **Step 3 – allocate costs to customer classes**

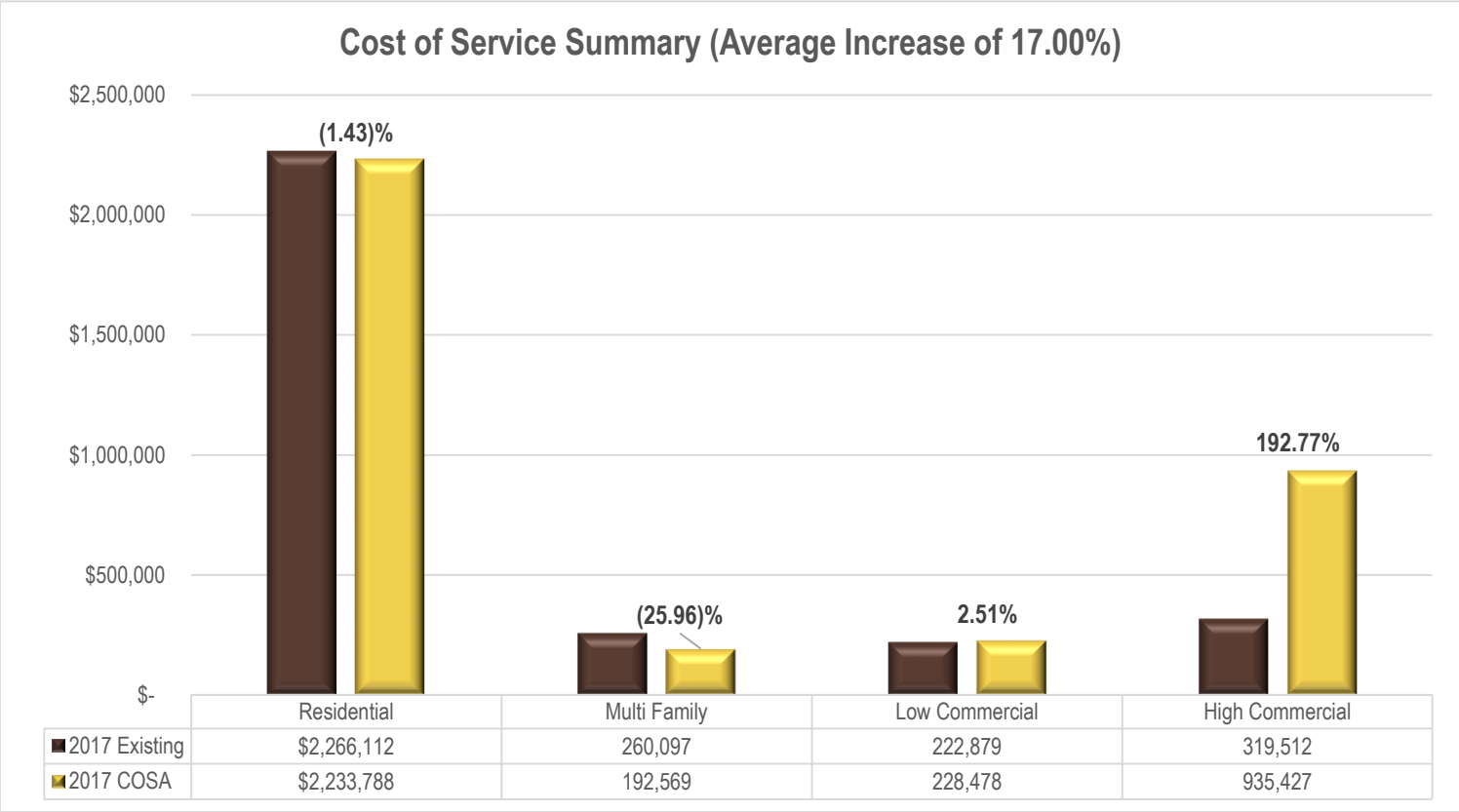
*** Industry Standard Methodologies; Water Environment Federation (WEF) Financing and Charges for Wastewater Systems Manual 27*

Functional Cost Pools



Total 2017 Costs = $3.6 million

Allocate Costs to Customers

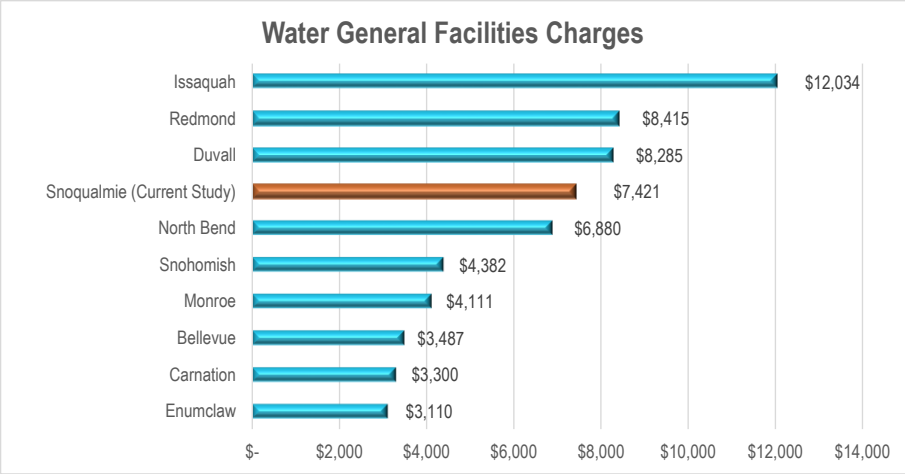


	Residential	Multi Family	Low Commercial	High Commercial
2017 Existing	$2,266,112	260,097	222,879	319,512
2017 COSA	$2,233,788	192,569	228,478	935,427

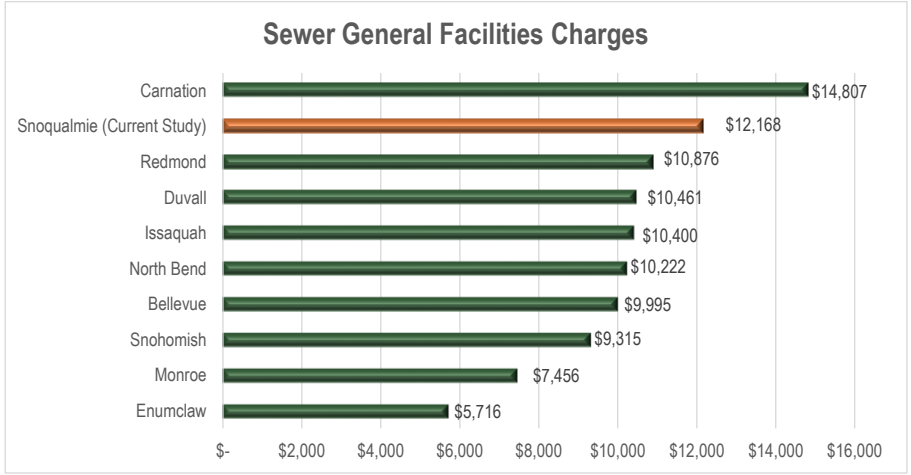
Rates – Recommended Sewer Rates

Class	2017	2018	2019	2020
Residential	15.9%	15.9%	15.9%	4.6%
Multi Family	15.9%	15.9%	15.9%	4.6%
Commercial				
Low Commercial	15.9%	15.9%	15.9%	5.2%
High Commercial	26.6%	25.7%	25.0%	11.2%
Total	**17.0%**	**17.0%**	**17.0%**	**5.5%**

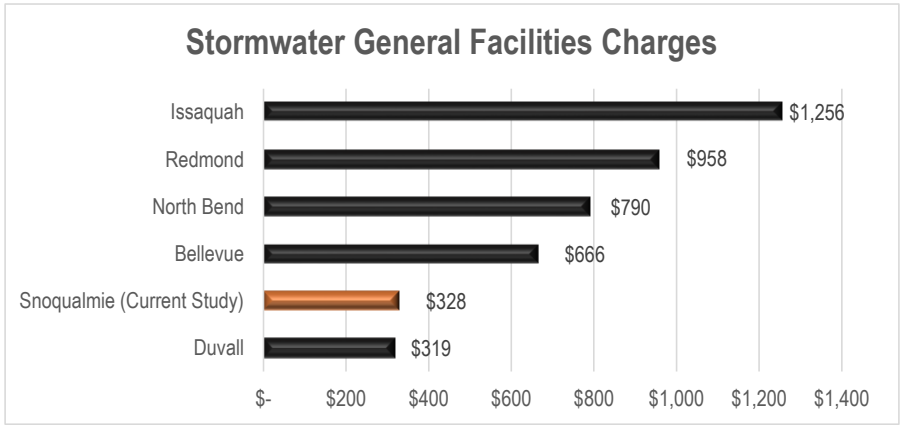
GFC Survey



Notes:
-Assume ¾" meters if available
-City of Redmond assumes a medium size home charge.
-City of Issaquah, Duvall and Redmond include a Regional Capital Facilities Charges



Notes:
-Municipalities with a King County Treatment charge assume a one time payment instead of the monthly installments for 15 years
-Assumes ¾" meter if applicable



Notes:
-City of Duvall GFC is per gross acre foot – assumed 6 lots per gross acre foot